

	Ministry of Higher Education and Scientific Research - Iraq University of Warith Al-Anbiyaa College of Advanced Technologies Department of Refrigeration and Air Conditioning Techniques Engineering	
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MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Industrial Engineering Management		Module Delivery
Module Type	B		☒ Theory ☐ Lecture ☐ Lab ☐ Tutorial ☐ Practical ☐ Seminar
Module Code	HVAC-404		
ECTS Credits	3		
SWL (hr/sem)	75		
Module Level	4	Semester of Delivery	1
Administering Department	BSC-HVAC	College	Advanced Technologies
Module Leader	Hussein S. Ketan	e-mail	hussein.kt@uowa.edu.iq
Module Leader's Acad. Title	Professor	Module Leader's Qualification	PHD
Module Tutor	Suzan abbas	e-mail	
Peer Reviewer Name		e-mail	
Scientific Committee Approval Date	2026-8-31	Version Number	1.0

Relation with other Modules

العلاقة مع المواد الدراسية الأخرى

Prerequisite module	NA	Semester	
Co-requisites module	NA	Semester	

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

Module Aims أهداف المادة الدراسية	Providing the engineer with information related to the management of the industrial unit (productivity) and its structural composition and finding the optimal solution using known methods in operations research and other engineering mathematical methods.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	Achieving the objectives of the industrial unit with the highest possible efficiency and maximum profitability and at the lowest cost, through the optimal use of production resources (workers, machines, and raw materials), maintenance and warehousing operations, then introducing the student to the system and economics of quality control and its functions and the principles of statistics and probability distributions.
Indicative Contents المحتويات الإرشادية	

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies	1. Quizzes and tests throughout the semester to check understanding and knowledge 2. Examinations, written, that assess learners' understanding of concepts, principles, and theories related to Industrial Engineering 3. Peer evaluation and feedback tools used as part of group projects or reciprocal feedback assignments.
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	4. Assignments and essays used to assess learners' comprehension of theoretical concepts.
	5. Presentation and demonstration of acquired knowledge in real-world scenarios.

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	45	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعياً	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	30	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعياً	2
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	75		

Module Evaluation تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10%	5, 10	
	Assignments	1	5%	9	
	Projects / Lab.				
	Report	1	5%	12	
Summative assessment	Midterm Exam	2hr	10%	7	
	Final Exam	3hr	60%	15	All
Total assessment			100%		

Delivery Plan (Weekly Syllabus) المناهج الأسبوعي النظري	
	Material Covered
Week 1	Introduction of management and industrial engineering
Week 2	Factors affecting the selection of the project place
Week 3	Methods of calculating transportation costs as an applied case
Week 4	Network diagrams and their applications in engineering projects

Week 5	Production lines and their types
Week 6	Planning and balancing production lines in the industrial unit
Week 7	Linear programming and its applications in industrial engineering
Week 8	Work study and time study
Week 9	Production process capability
Week 10	Inventory and its levels
Week 11	Maintenance and replacement and its applications Mathematics
Week 12	Economic feasibility
Week 13	The methods used to calculate the economic feasibility
Week 14	Normal Distribution and Area Calculation of the Standard Normal Curve
Week 15	Final exam

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts		yes
Recommended Texts	None	
Websites		None

Grading Scheme مخطط الدرجات				
Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 - 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.



استاذ المادة: د. حسين سالم

التاريخ: 31-8-2026



العميد : ا.م.د. علي باسم



رئيس القسم: ا.م.د. محمد حسن عبود

التاريخ : 31-8-2026

